UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/803,068	03/16/2004	Albert S. Wang	MS1-801USC6	5179

22801 7590 07/25/2005

LEE & HAYES PLLC
421 W RIVERSIDE AVENUE SUITE 500
SPOKANE, WA 99201

EXAMINER	
DIEP, NHON THANH	

ART UNIT	PAPER NUMBER
2613	

DATE MAILED: 07/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/803,068	WANG, ALBERT S.	
	Examiner	Art Unit	
	Nhon T. Diep	2613	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 May 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *13,29,45 and 49-53* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *13,29,45 and 49-53* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *16 March 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 9/31/05
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 13, 29, 45 and 49-53 have been considered but are moot in view of the new ground(s) of rejection.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 13, 29, 45, 49-53 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-13 of U.S.

Patent No. 6,707,852. Although the conflicting claims are not identical, they are not patentably distinct from each other because the invention being claimed is a broader recitation of the same invention being claimed in the above US Patent. Therefore, the application claims are encompassed by the above patent. A terminal disclaimer is required so as to insure that, were the application to mature into a patent, both patents would be commonly owned in their lifetimes.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 13 and 50 are rejected under 35 U.S.C. 102(e) as being anticipated by Chen et al (US 5,751,378).

Chen et al discloses a scene change detector for digital video comprising the same method for encoding a motion video signal, the method comprising: comparing the first and second frames of the motion video signal to one another to determine an absolute pixel difference between the first and second frames; determining, based at least in part on the absolute pixel difference, whether the second frame represents a scene change in a motion video image represented by the motion video image (col. 1, ln. 50 – col. 2, ln. 3); encoding the second frame as an independent frame upon a

condition in which the second frame represents the scene change in the motion video image; and encoding the second frame as a motion-compensated frame upon a condition in which the second frame do not represent the scene change in the motion video image (col. 1, ln. 40-49, col. 7, ln. 34-50 and col. 7, ln. 63 – col. 8, ln. 2 and fig. 2) as specified in claims 13 and 50.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 29 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al (US 5,751,378) as applied to claim 13, and in view of Kumazawa et al (US 5,815,217).

As applied to claims 13 and 50 above, it is noted that the Chen et al does not particularly disclose the using of computer and software to process the method as claimed in claim 13. Kumazawa et al teaches the detection and processing of motion video signal can be realized with software processing using a CPU 17 of general use as shown in the block diagram shown in FIG. 4. In other words, a moving image encoder 18 composed of the frame memory 1, the subtracter 2, quantizer 4, entropy encoder 5, adder 7, etc. is connected to a bus 19 of the CPU 17, and the prediction error between frames which is necessary for the scene-change detection can be read from the CPU 17. The CPU 17 realizes an operator, a counter and a comparator, that

is, a scene-change detection mechanism, following a program stored in a memory 20. Therefore, it would have been obvious to one of ordinary skilled in the art at the time the invention was made to modify the system of Chen et al by using computer and software to process the detection and coding of video signals as taught by Kumazawa et al. Doing so would help to expedite the process.

8. Claims 13 and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okada (US 5,729,295), in view of Chen et al (US 5,751,378).

Okada discloses a method for encoding a motion video signal, the method comprising: determining whether the second frame represents a scene change in a motion video image represented by the motion video image; encoding the second frame as an independent frame upon a condition in which the second frame represents the scene change in the motion video image; and encoding the second frame as a motion-compensated frame upon a condition in which the second frame does not represent the scene change in the motion video image (fig. 9, el. 47 and column 11, lines 29-37) as specified in claims 13 and 50. It is noted that Okada does not particularly disclose the comparing first and second frames of the motion video signal to one another to determine an absolute pixel difference between the first and second frames for determining, based at least in part on the absolute pixel difference, whether the second frame represents a scene change in a motion video image as specified in claims 13 and 50. Chen et al teaches "Various existing scene detection systems attempt to provide reliable scene change detection. For example, one system uses the sum of the absolute value of the difference of corresponding pixel values between the current frame and the previous frame, and compares this sum with a predetermined constant threshold to determine whether there is a scene change. Another system determines the absolute value of the difference between corresponding pixel values between the current frame and the previous frame. Then, the absolute value of the difference of the corresponding pixel values between the current frame and the next frame is determined. Finally, the sum of the difference of the above two differences is obtained and compared with a predetermined constant threshold to determine whether there is a

scene change. Therefore it would have been obvious to one of ordinary skilled in the art at the time the invention was made to modify the system of Okada by using the scene change detection between the present frame and the previous frame for the determining of scene change as taught by Chen et al. Doing so would help to obtain better results.

9. Claims 29, 45, 49 and 51-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okada (US 5,729,295) and Chen et al as applied to claims 13 and 50 above, and further in view of Kumazawa et al (US 5,815,217).

As applied to claims 13 and 50 above, it is noted that the combination of Okada and Chen et al does not particularly disclose the using of computer and software to process the method as claimed in claim 13. Kumazawa et al teaches the detection and processing of motion video signal can be realized with software processing using a CPU 17 of general use as shown in the block diagram shown in FIG. 4. In other words, a moving image encoder 18 composed of the frame memory 1, the subtracter 2, quantizer 4, entropy encoder 5, adder 7, etc. is connected to a bus 19 of the CPU 17, and the prediction error between frames which is necessary for the scene-change detection can be read from the CPU 17. The CPU 17 realizes an operator, a counter and a comparator, that is, a scene-change detection mechanism, following a program stored in a memory 20. Therefore, it would have been obvious to one of ordinary skilled in the art at the time the invention was made to modify the system of Okada and Chen et al by using computer and software to process the detection and coding of video signals as taught by Kumazawa et al. Doing so would help to expedite the process.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Frederiksen (US 5,247,355) discloses a gridlocked method and system for video motion compensation.

b. Botsford, III et al (US 5,734,419) discloses a method of encoder control.

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nhon T. Diep whose telephone number is 571-272-7328. The examiner can normally be reached on m-f.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on 571-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ND
7/19/2005

NHON DIEP
PRIMARY EXAMINER